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EMPIRICAL EVIDENCE ON SETTLEMENT DEVICES: DOES RULE 68 ENCOURAGE SETTLEMENT?*

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I. INTRODUCTION

Proposals for enhanced settlement offer devices continue to appear in efforts at civil justice reform. Over a decade ago the Advisory Committee on Civil Rules twice put forward proposed revisions to Federal Rule of Civil Procedure 68 on offers of judgment, but retreated under heavy shelling.¹ Within the last few years the Committee considered another revision of Rule 68, this one based on a proposal by the then Director of the Federal Judicial Center, Judge William Schwarzer.² The Committee has not issued any formal revision proposal, and for a time it seemed its thunder might be stolen by the Contract with America: The "Attorney Accountability Act of 1995," passed by the House of Representatives as H.R. 988 in early

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1. See Thomas D. Rowe, Jr., with Neil Vidmar, *Empirical Research on Offers of Settlement: A Preliminary Report*, 51 LAW & CONTEMP. PROBS. 13, 15, & nn.8-10 (Autumn 1988).

2. William W. Schwarzer, *Fee-Shifting Offers of Judgment—An Approach to Reducing the Cost of Litigation*, 76 JUDICATURE 147 (1992). The central feature of the Schwarzer proposal and of the draft considered by the Advisory Committee is a "capped-benefit-of-the-judgment" formula for reckoning attorney fee liability. Rather than being liable for *all* of an adversary's reasonable post-expiration-of-offer fees, a party who rejected and did not improve on an offer would ordinarily owe the amount of such fees *minus* the difference between the offer and the judgment, limited by the total amount of the judgment. Thus, a plaintiff who rejected an offer of \$50,000 and recovered only \$40,000, with the defendant incurring \$15,000 in reasonable fees after expiration of its offer, would owe \$5,000 of the defendant's fees. (The effect, with the \$40,000 verdict reduced by the plaintiff's \$5,000 fee liability to \$35,000, would be to leave the defendant—with its \$15,000 in fees—out of pocket the total of \$50,000 the defendant had offered to part with. Recovery below \$35,000 would yield an offer-judgment differential greater than the fee amount, eliminating all fee liability but leaving the defendant out less than \$50,000 total; hence the "benefit-of-the-judgment" label.) The limit on fee liability to the total amount of the judgment would mean that if the plaintiff recovered, say, only \$10,000, its net award could not go below zero no matter what the offer had been, or what amount of reasonable post-expiration attorney fees the defendant incurred. This cap is meant to avoid what might be the excessively harsh effect of driving successful plaintiffs into the hole, and also would reduce both sides' incentives to invest heavily in small-stakes cases.

March of 1995, includes an offer of settlement device that would apply in all federal diversity actions except to claims seeking equitable relief. The Act makes one who rejects an adversary's formal offer but fails to obtain a more favorable judgment ordinarily liable for the offeror's post-offer attorney fees and other costs and expenses.³ Although this provision seems unlikely to be adopted in the present Congress, its appearance in H.R. 988 shows the continuing attractiveness of such proposals.

Despite the increasing prominence of offer devices in discussions of procedural reform, and a good deal of speculation and theoretical work about their likely effects,⁴ extremely little empirical work has been done to see whether they actually serve their intended goal of encouraging pretrial settlements. The research reported in this Article provides the first empirical evidence drawn primarily from practitioner subjects on the effects of offers of settlement. The study continues the vital inquiry into the differences that altered offer rules might make, a process initiated with theoretical investigations and preliminary empirical results from a paper questionnaire administered to student subjects.⁵ This Article reports on an interactive computer simulation of a tort litigation case. The results indicate that Rule 68 has the potential to influence settlement bargaining, although changes like those being considered for Rule 68 should be considered with caution, as even increased stakes may not carry the potency often ascribed to the Rule. This research also tests the Sincerity Rule, an unconventional but theoretically exemplary offer rule, with promising results.

The essence of the offer of judgment or offer of settlement device—on the books and in proposed revisions—has been that a party (in the version examined below, as in the Schwarzer and H.R. 988

3. H.R. 988, 104th Cong., 1st Sess. § 2 (1995). The bill has puzzling provisions about fee recoverability starting only on the date of the last offer by an offeror or offeree. It also contains limits on fee liability different from those in the Schwarzer proposal, see Schwarzer, *supra* note 2, by permitting denial of awards when requiring payment of fees and expenses would be "manifestly unjust," and limiting liability to the other side to the amount of one's own fees.

4. See, e.g., David A. Anderson, *Improving Settlement Devices: Rule 68 and Beyond*, 23 J. LEGAL STUD. 225 (1994); Rowe with Vidmar, *supra* note 1, at 15-17.

5. Rowe with Vidmar, *supra* note 1. The Rowe with Vidmar article included an introductory sketch of the setting where debates over offer of settlement rules take place—existing rules, earlier proposed changes, leading decisions and commentary, and arguments over possible benefits and dangers of enhanced offer rules. See *id.* at 13-19. That summary remains reasonably current in most respects, and readers who would like more background in the area might wish to consult it. For brevity and economy, we will say no more here, except to clarify that we will occasionally use the term "enhanced" as shorthand to refer to offer rules that can affect attorney fee liability and entitlement and that may be made by either side.

versions, *either* party) can formalize an offer to settle or to have judgment entered on certain terms, with the offeree exposed to adverse consequences if she does not accept the offer, and then fails to do well enough in the ultimate result as measured against the offer. To put the point another way, the rule makes "losers" suffer consequences, such as liability for post-offer costs or attorney fees, and the formal offer changes the benchmark of what counts as "losing" for purposes of determining cost or fee liability. A plaintiff, say, may win a verdict, but will incur liability for the defendant's reasonable post-offer costs or fees (or those incurred after *expiration* of the offer, to give the plaintiff time to consider it) if the verdict is not good enough in relation to a rejected defendant's offer.

Intertwined issues in debates over possible changes in Federal Rule 68 and state counterparts have been of several kinds. Some are analytical, concerning the mechanics and logistics of possible revisions. Others go to policy, dealing with the nature and degree of consequences that litigants should face from the operation of such rules, and the consequences' consistency with other law such as prevailing civil rights plaintiffs' statutory entitlement to attorney fees.⁶ Still other concerns are both theoretical and empirical, raising questions about the direction and strength of the possible changes' impact on the pursuit of claims and defenses and on the likelihood, timing, and terms of settlements. This Article focuses on this last set of concerns, and on settlement likelihood in particular, striving for realism by using practitioner subjects and computer technology that presents an interactive simulation of a hypothetical tort litigation situation.

6. See, e.g., 42 U.S.C. § 1988 (Supp. III 1991). For further discussion of the interrelation between offer rules and fee award statutes, see Thomas D. Rowe, Jr., & David A. Anderson, *One-Way Fee Shifting and Offer of Judgment Rules: An Experiment*, 36 JURIMETRICS J. 255 (1996); Rowe with Vidmar, *supra* note 1, at 18 nn.24-25.

The "capped-benefit-of-the-judgment" approach of the Schwarzer proposal, see Schwarzer, *supra* note 2 and accompanying text, is intended to make offer rules more effective by adding possible attorney fee liability to the consequences facing a rejecting offeree. At the same time, its limiting features might alleviate the fears of those concerned with severe impacts and conflicts with statutory fee entitlements. The limits in the H.R. 988 version probably do less to moderate the rule's impact than the limits in the Schwarzer proposal.

The present research tests a rule version that corresponds to the earlier Advisory Committee proposals, without limiting features like those in the Schwarzer proposal or H.R. 988. However, the Rowe with Vidmar article found "no significant differences," Rowe with Vidmar, *supra* note 1, at 30, in the effects reported there between a Schwarzer-type Rule 68 and a full fee-shifting version, which later was used both in that previous simulation and in our present research. It seems likely, then, that the results reported here for the full fee-shifting offer rule will have applicability to rules patterned on the Schwarzer proposal or the H.R. 988 version.

II. EMPIRICAL ISSUES AND HYPOTHESES⁷

A major stated purpose and expectation for offer rules is to promote pretrial settlements in civil litigation.⁸ Discussion of such rules often assumes that enhancing offer rules (as by adding attorney fee liability or making the offer device usable by claimants as well as defendants) will raise the settlement rate.⁹ Contrary theoretical analysis has suggested that—at least absent significant risk aversion among offerees¹⁰—Rule 68 variants should have few, if any, effects on the settlement rate.¹¹ In brief, the argument is that settlement requires

7. Some of our hypotheses as stated in this Article will strike readers as intuitively improbable; often we are likely to agree, and the reason for the statements has to do with the methodology of social science empirical work rather than the naiveté of the authors. Ideally, when it comes to stating and testing hypotheses, experimenters are cold-bloodedly impartial: we should state our pet propositions and our *bêtes noires* alike in the form that most lends itself to empirical testing, which most often will be an affirmative proposition subject to experimental disproof. Thus, we may not start with the view that lawyers' experience teaches them nothing, and that lawyers react to cases in the same way that law students do; but we will state as our "null" (i.e., subject to falsification) hypothesis that practitioners and upperclass law students will react similarly to the same scenario and background information. Some hypotheses, of course, are stated in the form that theoretical analysis predicts that they will hold true, such as the Sincerity Rule's effect of inducing settlement at the expected verdict level. Then, in effect, we are daring the data to show us wrong—which they may or may not do, and if they do, we may need to go back to the drawing board and revise the theoretical analysis that yielded the undermined hypothesis. In any event, the form in which an hypothesis is stated is not necessarily a sign of the experimenters' expectations about its truth or falsity, and often the most we can say is that the data do not suggest that we should reject the initial hypothesis.

8. See, e.g., Thomas D. Rowe, Jr., *Predicting the Effects of Attorney Fee Shifting*, 47 LAW & CONTEMP. PROBS. 139, 165 n.11 (Winter 1984).

9. See, e.g., Schwarzer, *supra* note 2, at 152 ("The assumption underlying the proposed revision is that it will encourage parties to make earlier and more reasonable offers, leading to earlier settlement negotiations with greater prospects of success."). The Schwarzer article goes on to acknowledge the issues raised by economic analyses about whether offer rules in particular, and attorney fee shifting in general, would encourage or discourage settlements. See *id.* at 152-53; see also Questionnaire Concerning Proposed Amendments to Rule 68, FRCP, Question 14 (Apr. 1994) (questions and answer tabulations from Federal Judicial Center survey of counsel in selected recent federal cases) (on file with the authors) (75% of respondents expecting that amendment of Rule 68 allowing offers by both sides that would create partial attorney fee liability probably would "result in more cases reaching settlement").

10. With offer rules increasing the span of possible outcomes and threatening offerees with attorney fee liability they would not otherwise face, risk aversion among offerees or those advising them could lead to acceptance of Rule 68 offers that would not be accepted without a formal offer rule affecting fee liability. Such a tendency to accept otherwise unacceptable offers could lead to an increase in the settlement rate, an effect commonly viewed as desirable in itself; but this benefit could come at the cost of playing on weaknesses of thinly financed parties and driving them to accept offers inferior to the expected value of a litigated judgment.

11. See Anderson, *supra* note 4; Geoffrey P. Miller, *An Economic Analysis of Rule 68*, 15 J. LEGAL STUD. 93, 110-16 (1986); Dale A. Oesterle, *Proposed Rule 68 on Offers of Settlement*, 10 CORNELL L.F. 11, 11-12 (Feb. 1984); George L. Priest, *Regulating the Content and Volume of Litigation: An Economic Analysis*, 1 SUP. CT. ECON. REV. 163, 168-71 (1983); Rowe, *supra* note 8, at 166-69. But see Kathryn E. Spier, *Pretrial Bargaining and the Design of Fee-Shifting Rules*, 25 RAND J. ECON. 197, 211, 198 (1994) (especially if parties start from different expectations about the level of damages, "broadening the definition of costs to include attorneys' fees and extending the [formal offer] rules to offers made by either litigant will increase their effective-

agreement on an amount between the most the defendant could expect to lose and the least the plaintiff could expect to gain. Failures to settle in the absence of an offer rule result primarily from 1) disagreement over the probable jury award, or 2) bargaining impasse over how to divide the joint savings from not going to trial.¹² Rule 68 may alter the litigants' best possible outcomes, but it does not remove either of these generalized impediments to settlement (although it can affect their strength). Further, making a formal offer that is not accepted can have a "dig-in" effect that reduces the likelihood of settlement. This effect can come about because the making of an offer improves the offeror's expected outcome from trial, perhaps by more than it worsens a relatively optimistic adversary's expected yield from trial. The result can be that the parties are further apart than before; and the offeror, choosing in later bargaining between settlement and trial, will have less reason to settle because of the increased attractiveness of the trial's likely outcome.¹³

This disagreement over the likely effects of enhanced offer rules is crucial to their possible revision, and is an empirical issue that this Article attempts to address. The possibility that offer rules may not accomplish one of their main ends also makes it important to think

ness in encouraging settlement," primarily by facilitating "the credible transmission of information between the litigants").

12. These explanations for failure to settle draw on two widely used approaches in theoretical models of litigant behavior, often referred to as the "optimism" and "strategic behavior" frameworks. See, e.g., Samuel R. Gross & Kent D. Syverud, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319, 321 (1991); Rowe with Vidmar, *supra* note 1, at 31 nn.53-55. Gross and Syverud find support for the presence of both kinds of factors in their empirical study of cases that did not settle, but also find that several other characteristics of the litigation context and the relations among litigants and attorneys are necessary to a fuller understanding of bargaining impasses. See Gross & Syverud, *supra* at 322, 378-79.

13. Even if this effect holds true, offer rules could still have other desirable effects such as bringing about earlier settlements in cases that are likely to settle anyway, and affecting the terms of settlement so that parties with strong cases have stronger bargaining positions and need give up less in bargaining to recalcitrant adversaries. See Anderson, *supra* note 4, at 239-40; Rowe, *supra* note 8, at 169-70. Our present study did not attempt to measure the effects of offer rules on the timing of settlement, although high rates of respondents saying that they would recommend a Rule 68 counter-demand or counter-offer following the client's presumed rejection of the other side's Rule 68 offer (92% for plaintiffs' counsel, 83% for defense counsel) do suggest some success at eliciting prompt offers and demands. The amounts counter-demanded by plaintiffs were also significantly higher than their bottom lines under no fee-affecting Rule 68 (\$28,820 vs. \$25,520, significant at the 95% level of confidence), providing some confirmation of the strengthening of bargaining positions. The Rule 68 counter-offers of defendants, who were more receptive to the initial Rule 68 offers at every level, see *infra* note 25 and Figure 1, were not significantly different from their no-rule bottom lines. One may also favor offer rules on non-instrumental grounds, out of a sense that it is morally just that a party who rejected an offer that later proved reasonable should bear costs and fees required for further proceedings occasioned by the rejection. See Rowe, *supra* note 8, at 165.

about possible alternative devices that might work better. Our research treats that question by empirically testing, along with a standard type of offer rule affecting attorney fee liability, the Sincerity Rule, a variant that provides theoretically ideal incentives. The Sincerity Rule and related mechanisms have been discussed in the literature on legal reform and game theory,¹⁴ but have not yet been tested empirically.

Under the Sincerity Rule, either party can make a final offer designated as a Sincerity Offer. The offeree may either accept the offer or continue to trial, in which case the offeror would pay the offeree's reasonable post-offer fees (whatever the outcome), rather than the other way around as with conventional offer rules. There is sound method to the apparent madness of this reverse twist: the offeree effectively must choose between the offer and the expected jury award (with fees paid), meaning that "reasonable" offers approximating the expected jury award should be accepted, and unreasonable offers should be rejected. It is desirable for the offeror to make an offer near the expected jury award to avoid the fees, other costs, and uncertainty of trial, and it is desirable for the offeree to accept such an offer because the alternative (trial) has the same expected value with added uncertainty.¹⁵ Moreover, the offeror's possible fee liability would strongly motivate offerors to make offers favorable enough to the adversary to have a high chance of being accepted.¹⁶ Although the Sincerity Rule as framed in our simulation may be intolerably rigid for real-world adoption, the use of computerized techniques simulating litigation situations provides a valuable opportunity for the testing of such unconventional approaches, and can help move meritorious approaches from the realm of theory onto the agenda for practical consideration. A more detailed explanation of the Sincerity Rule appears in the Appendix.

14. See Anderson, *supra* note 4, at 240-41; Vincent P. Crawford, *A Procedure for Generating Pareto Efficient Egalitarian Equivalent Allocations*, 47 *ECONOMETRICA* 49 (1979); Hervé Moulin, *Implementing the Kalai-Smorodinsky Bargaining Solution*, 33 *J. ECON. THEORY* 32 (1984); Hervé Moulin, *The Conditional Auction Mechanism for Sharing a Surplus*, 51 *REV. ECON. STUD.* 157 (1984).

15. For compelling practical reasons, settlement could not be allowed after the rejection of a Sincerity Rule offer; the parties *must* go to trial. If negotiation could follow the rejection, the offeree's bargaining position would be greatly improved by having the alternative of a free ride at trial. Potential offerors would therefore avoid making such offers, and the rule would be ineffectual. The tradeoff between expediting settlement and shortening the period during which new information can affect negotiations occurs under any rule that accelerates settlement—information that comes to light after the early settlement is beside the point.

16. The Sincerity Rule might also be called the "Godfather Rule" because it creates incentives to make an offer that is too good to be refused.

In our empirical research we test two principal hypotheses: 1) offer of settlement rules in their usual form with rejecting offerees exposed to *adverse* consequences (even with the addition of attorney fee liability) do not increase the settlement rate;¹⁷ and 2) under the Sincerity Rule with its *favorable* consequence of fee payment for a rejecting offeree, settlement offers are likely to be made *and* accepted near the level of the offeree's expected judgment, when adversaries interpret case data rationally and have similar expectations about the likely result of trial.¹⁸ Aware that it is a significant unknown how realistic common assumptions of risk neutrality, rational data interpretation, and adversaries' similar expectations about likely judgments are, we test the accuracy of those assumptions.¹⁹ Our research design makes this effort possible by gathering data from experienced lawyers on both plaintiffs' and defendants' sides about expected judgments, the "density function" of likely outcomes, and bottom line settlement recommendations with and without offer rules affecting attorney fee liability.

III. RESEARCH DESIGN

The survey device was an interactive, computerized litigation simulation completed by 131 practicing lawyers and 27 upperclass law students.²⁰ The lawyers were mostly participants in an American Inn of Court; others were members of the Dispute Resolution Committee of the North Carolina Bar Association.²¹ While responses were anony-

17. Or more precisely, given our mostly lawyer subjects, they do not lead counsel to make recommendations in response to formal offers that would increase the settlement rate.

18. Strategic bargaining, *see supra* note 12 and accompanying text, can sometimes lead to trial rather than settlement even between rational parties with similar trial expectations. There remains room, then, for settlement devices to raise the settlement rate even under those assumptions.

19. On one significance of having more information about such assumptions, *see Oesterle, supra* note 11, at 12. Oesterle describes situations involving parties' divergent judgment expectations in which he argues that a Rule 68 that affects parties' liability for adversaries' attorney fees will reduce the likelihood of settlements between risk-neutral litigants. He then points out that the absence of information on such relative litigation value expectations means that we do not know how many cases are like his examples, and "we can only guess whether we will gain more settlements than we will lose." *Id.*; *see also* Laurens Walker, *Avoiding Surprise from Federal Civil Rulemaking: The Role of Economic Analysis*, 23 J. LEGAL STUD. 569 (1994) (stressing the importance of testing proposed rule alterations empirically).

20. The simulation is available from the authors on computer diskette or in printed form.

21. We are grateful to the American Inns of Court Foundation and the Dispute Resolution Committee of the North Carolina Bar Association for their cooperation in providing endorsement of our research and mailing lists of their members, and to the members who completed the computer simulation and returned diskettes. The American Inns of Court Foundation is a national law organization with approximately 10,000 practitioner, judge, and law student members, which includes among its objectives the promotion of civility in litigation. That emphasis in-

mous, the computer program collected information on practitioner respondents' experience in tort litigation, year of first bar admission, and office ZIP code so that our statistical analysis could control for variables of experience and geographic location. The student subjects were upperclass Duke law students. Participation in all cases was voluntary, and response rates from the groups whose participation was sought were approximately 10% for the practitioners and 5% for the law students.²²

Depending on information about a respondent's status and experience, the program put each respondent on either a plaintiff's or a defendant's "track." Lawyers with tort experience who mostly represented defendants went into the defendant's track; all students and those lawyers who mostly represented plaintiffs went into the plaintiff's track; and lawyers with no particular emphasis were assigned randomly. Both tracks presented the same factual information, but called on respondents to play the role of defense or plaintiff's counsel and to recommend offer or demand levels, acceptance or rejection of the adversary's offers, etc. This channeling of respondents, and the ability to identify experienced plaintiffs' and defendants' counsel among those on each track, permitted measuring what verdicts those working each side expected on identical facts, which allowed us to assess the presence or absence of optimism about likely results. If optimism was present on one side and not offset by pessimism on the other, or if present on both sides, such optimism put the parties further apart, and worked against settlement.

The scenario used in the simulation is a common personal injury auto tort, the type of case that makes up about half of all tort filings in courts of general jurisdiction.²³ The findings regarding the effects of

introduces the possibility of some bias in our sample, but there is reason to expect that it might be minimal because much of the focus of our research is on the extent of differences between behavior under varying forms of offer rules. We sent our survey materials to practitioner members of selected Inns, chosen for geographical and city-size dispersion.

22. These response rates, of course, raise questions about self-selection effects inducing bias in the samples. We cannot rule out some biases of unknown direction and magnitude; with the survey instrument sent out on a diskette with respondents asked to run the program and mail back the diskette, our sample is presumably more computer-literate than the entire population in the groups sampled or than the lawyer population as a whole. Still, we know of no basis for inferring bias in the likely results, and the self-reported characteristics were broadly representative of the lawyer population at large. Our response rate from practitioners is respectable compared with other single mailings to similar populations. Telephone Interview with David Akridge, Membership Director, American Inns of Court (May 5, 1994). In any event, we see the results presented here as better—considerably—than no information at all.

23. See, e.g., DEBORAH R. HENSLER ET AL., *TRENDS IN TORT LITIGATION* 8 (1987). For advice on the methodology and realism of the simulation, we are grateful to Stephen Burbank, Avery Katz, Lewis Kornhauser, Laura Macklin, Thomas Metzloff, Michael Meurer, Geoffrey

settlement rules should therefore be applicable to a broad range of civil litigation. Besides facts about the case, the program gives information about claims and verdicts in several similar cases, based on actual jury verdict reports. After seeing the scenario of the hypothetical case and the jury verdict information, respondents were asked to give estimates of the percentage likelihood of verdicts above several levels (thus revealing their "density function" of expected verdicts) and a single amount as their best estimate of the likely jury award. The shape and similarity of adversaries' density functions affect the likelihood of settlement. A comparison of the single amount given as an expected jury award with the expectation calculated from the density function provides a measure of the mathematical sophistication with which lawyers use their data, and the strength of any tendencies toward optimism.

To determine the relative effectiveness of an enhanced Rule 68 affecting liability for post-offer attorney fees and usable by either side, the program asks subjects first for their advice to a client on what should be the bottom line in settlement negotiations with no Rule 68 affecting attorney fee liability—the lowest offer or highest demand that the side should accept in pretrial settlement bargaining. The program then describes a simple form of amended Rule 68 affecting liability for post-offer fees and asks for the respondent's recommendation on accepting or rejecting Rule 68 offers from the adversary that are \$1,000, \$2,000, \$4,000, \$6,000, and \$8,000 less favorable (lower for plaintiffs, higher for defendants) than the bottom line they had just stated. To check for any effect that offer order may have on acceptance patterns, the program varies the order between respondents by starting with the amount nearest to or farthest from the no-Rule-68 bottom line recommendation and then descending or ascending. The program then asks whether, supposing that the client chose to reject the adversary's offer or demand regardless of the respondent's advice, the subject would recommend a counter-demand or counter-offer, and if so, of what amount. At key points the program invited respondents to explain major decisions briefly on a sheet of paper that could be mailed back with the program diskette.

The program finally explains and tests the Sincerity Rule, under which the hypothesis is that respondents would recommend acceptance of offers more favorable than or equal to the expected verdict.

In the simulation, the adversary offers settlement under the Sincerity Rule for the subject's expected verdict of E (taken from the previously obtained single estimate of likely verdict) plus \$3,000, E plus \$1,000, E , E minus \$1,000, and E minus \$3,000, again with the program varying for different respondents between ascending and descending orders. Because the Sincerity Rule, by making the offeror liable for an offeree's post-offer attorney fees (for simplicity, the program instructed respondents to regard other expenses as negligible), effectively eliminates the monetary cost of proceeding to trial, the response to this question provides a measure of risk preference. If trials are free and an offer of pretrial settlement is there for the taking, a risk-averse respondent who expects a verdict of E will recommend accepting some offers less favorable than E . A risk-loving respondent, however, will roll the dice and counsel rejection of some offers that are more favorable than E . Again, the program invites brief written explanations at key points.

Asking each subject to operate under alternative rules after working under no rule is more realistic than asking each lawyer to consider a single offer rule in isolation. If an alternative rule is adopted in the real world, lawyers will be forced to make a similar cognitive shift to work under the new rule after working under existing rules, rather than erasing all accumulated experience of current rules from their knowledge base. Within-subject comparisons are thus more appropriate here than in studies of inputs when only one input will affect a particular agent in the real world (e.g., the effect of various flu shots on immunity).

IV. SAMPLE CHARACTERISTICS AND SIMULATION RESULTS

Among the 83% of our respondents who were lawyers, a majority (77%) reported experience in tort litigation. Respondents came from all regions of the country, although the largest number lived in the South because of the use of North Carolina Bar Association members. The sample includes 92 responses from lawyers representing the plaintiff's side (which was the default for students) and 66 responses from lawyers representing the defendant's side in the simulation.²⁴ Table 1 defines the variables collected, and Table 2 presents the characteristics of the sample.

24. Although 17% of the survey respondents were advanced law students rather than practicing lawyers, all respondents were asked to act as lawyers during the simulation, and will be referred to as lawyers in our discussion. For an explanation of how respondents were assigned to sides, see *supra* text following note 22.

TABLE 1
VARIABLE DEFINITIONS

EXPERIENCE	The number of years since the lawyer first passed the bar exam.
STUDENT	Dummy variable equaling 1 if respondent is a student, 0 otherwise.
LAWYER	Dummy variable equaling 1 if respondent is a lawyer, 0 otherwise.
LAWYER W/TORT	Dummy variable equaling 1 if lawyer with tort experience, 0 otherwise.
DESCENDING	D.v. equaling 1 if offers were presented in descending order, 0 otherwise.
NORTHEAST	Regional d.v.: 1 if respondent lives in northeastern U.S., 0 otherwise.
NORTH CENTRAL	Regional d.v.: 1 if respondent lives in north central U.S., 0 otherwise.
SOUTH	Regional d.v.: 1 if respondent lives in southern U.S., 0 otherwise.
WEST	Regional d.v.: 1 if respondent lives in western U.S., 0 otherwise.
NO RULE MINIMUM ASK	Min. acceptable offer to the plaintiff under no offer rule (in \$1000's).
RULE 68 MINIMUM ASK	Min. acceptable offer to the plaintiff under Rule 68 (in \$1000's).
NO RULE MAXIMUM BID	Max. acceptable demand from the defendant under no offer rule (in \$1000's).
RULE 68 MAXIMUM BID	Max. acceptable demand from the defendant under Rule 68 (in \$1000's).
COMPUTED EXPECTATION	Expectation of the jury award based on density function (in \$1000's).
STATED EXPECTATION	Stated expectation of the jury award (in \$1000's).

A. Conventional Rule 68 Affecting Attorney Fee Liability

To test the hypothesis that Rule 68 is not an effective inducement to settlement, we observed whether respondents recommended acceptance of Rule 68 offers (affecting attorney fee liability and available to both parties) inferior to their recommended bottom line—their “minimum ask” or “maximum bid”—under no such rule.²⁵ With no-rule minimum-ask or maximum-bid levels averaging about \$25,000,

25. Even if offerees accepted offers inferior to their no-offer-rule minimum ask or maximum bid, settlement rates still might not rise because of the quality of offers made, or because of the effect of the offer rule on post-rejection bargaining in cases that would have settled without an offer rule affecting attorney fee liability. It is, however, a precondition for raising the settlement rate that offerees accept some Rule 68 offers that they would not accept without the rule (unless an enhanced rule elicited a good many offers acceptable to offerees that would otherwise never have been made at any stage in the litigation, which seems unlikely).

TABLE 2
SAMPLE MEANS AND STANDARD DEVIATIONS (N=158)

Variable	Mean	Standard Deviation
EXPERIENCE	10.09	8.38
STUDENT	0.17	0.33
LAWYER	0.83	0.38
LAWYER W/TORT	0.64	0.48
DESCENDING	0.61	0.49
NORTHEAST	0.15	0.35
NORTH CENTRAL	0.21	0.41
SOUTH	0.44	0.50
WEST	0.20	0.40
NO RULE MINIMUM ASK	25.52	8.29
RULE 68 MINIMUM ASK	23.83	7.62
NO RULE MAXIMUM BID	23.83	8.39
RULE 68 MAXIMUM BID	26.92	8.68
COMPUTED EXPECTATION		
PLAINTIFF'S SIDE	32.72	10.97
DEFENDANT'S SIDE	31.77	11.48
STATED EXPECTATION		
PLAINTIFF'S SIDE	28.95	9.80
DEFENDANT'S SIDE	26.65	11.41

62% of lawyers acting as counsel for the plaintiff and 91% of lawyers acting as defense counsel recommended accepting a Rule 68 offer that was inferior to their no-rule limit by \$1,000 (see Figure 1). However, the acceptance levels dropped to 42% and 61% for offers inferior by \$2,000, and fell to 21% and 39% for offers inferior by \$4,000. Despite our efforts in framing the question²⁶ about bottom-line recommendations before the program introduced Rule 68, it is of course possible that stated bottom lines included an element of bluff.²⁷ Also, some lawyers regarded a difference of \$1,000 as insubstantial—suggesting that they might have recommended acceptance of such offers even

26. For respondents acting as plaintiff's counsel, the question asked: "If settlement bargaining took place now, what would be the lowest offer that you would recommend that your client accept at this time?" For the defense side, the parallel question was, "If settlement bargaining took place now, what would be the highest demand that you would recommend that your side agree to at this time?"

27. The element of bluff may not be great, however, for Kritzer reports from an empirical study of legal bargaining that many of lawyers' initial demands and offers (52% of demands, 35% of offers) were no more than equal to their estimates of the appropriate resolution of the case from their client's viewpoint. See HERBERT M. KRITZER, *LET'S MAKE A DEAL: UNDERSTANDING THE NEGOTIATION PROCESS IN ORDINARY LITIGATION* 47-48 (1991). Still, enough demands and offers were outliers (14% of highest demands more than twice the perceived stakes, and 37% of lowest offers less than half of perceived stakes) that effective offer devices could have an impact on moderating extreme offers and demands. See *id.*

with no fee-affecting Rule 68.²⁸ The decidedly lower but still notable rates of recommended acceptance of significantly less favorable offers suggest that this form of Rule 68 might have a modest effect on settlement rates. And even without the participation of clients, the level of recommended acceptance of offers significantly inferior to the bottom line no-offer-rule recommendations suggests considerable room for "low-ball" offer tactics that play on an adversary's risk aversion.²⁹

In the previous study by Rowe and Vidmar,³⁰ which administered paper questionnaires to student populations, the authors used t-tests for the differences in sample means³¹ to compare acceptance levels under enhanced versions of Rule 68 and under no such rule. The results suggested that litigants might accept a less favorable settlement when given a Rule 68 offer. In the computer simulation results, the average plaintiff's lawyer would advise the acceptance of as little as \$25,522 under no rule and \$23,826 under Rule 68. The maximum offers suggested by defendant's lawyers were \$23,833 under no rule and \$26,924 under Rule 68. The hypothesis of lower minimum ask levels

28. From the written comments that respondents were invited to make, the following illustrate the point: "There is always a margin of error in case evaluation. One thousand dollars is an acceptable margin of error." "Twenty thousand dollars is a bottom offer. I might go \$1,000 less to save \$6,000 in fees, but two thousand [less] for \$6,000 of insurance is too much."

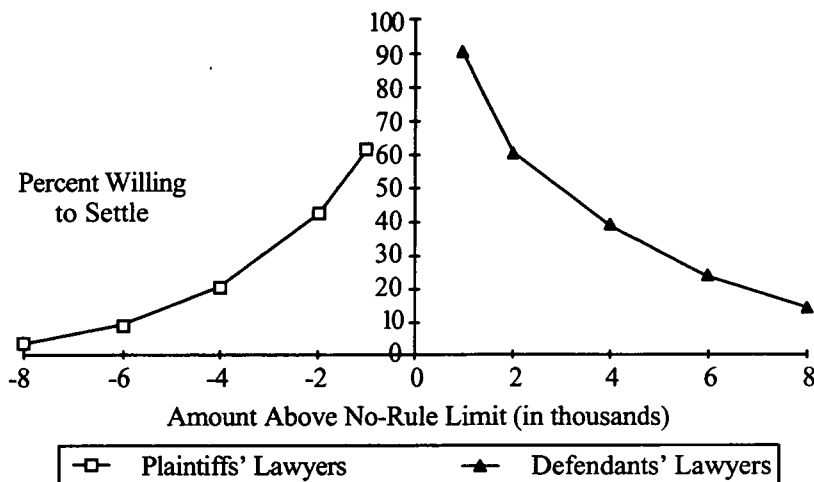
29. Interestingly, the recommended acceptance levels reflected in Figure 1 show defense counsel regularly recommending acceptance of unfavorable Rule 68 demands at *higher* rates than plaintiffs' counsel recommended acceptance of unfavorable Rule 68 offers. In other words, contrary to commonly expressed concerns, the defense side could be more subject to "high-ball" demand tactics under enhanced versions of Rule 68 than plaintiffs are vulnerable to "low-ball" offers. To be sure that the inclusion of law students in the subject group on the plaintiffs' side did not account for this result, we removed the student responses and found the differences in the results to be trivial and non-systematic.

This puzzling difference between defense counsel and plaintiffs' counsel is compounded by a reverse tendency in the data reported under the Sincerity Rule, which awards rejecting offerees their fees. Thus, Figure 2 reflects that when given a free ride rather than threatened with an adverse shift, defense counsel showed a stronger tendency than plaintiffs' lawyers to recommend gambling on trial—even when facing settlement demands that were favorable to their clients. Colleagues with considerable litigation experience have suggested the following explanation for this seemingly counter-intuitive pattern of defense counsel being *more* risk averse when facing down-side fee threats to their clients, but less conservative when offered a free ride, than plaintiffs' counsel: Our sample consisted of lawyers (and a few law students), not clients. Defense counsel, not working on contingent fees, know all too well the readiness of clients to question fee billings. Client unhappiness can multiply when the bill is not just for the fees of one's own defeated champion, but also for the fees of a gallingly victorious plaintiff adversary. By contrast with this sobering prospect, defense counsel could plausibly be readier to roll the dice with no threat of fee liability *and* their own side's fees guaranteed under the Sincerity Rule—in contrast with plaintiffs' lawyers, whose experience may include unkept promises from the legal system of full recompense from the other side for time and expenses, coupled with inability to recoup all such costs from a contingent-fee client.

30. Rowe with Vidmar, *supra* note 1.

31. A t-test for the difference in sample means uses the means and standard deviations of the maximum bid or minimum ask levels for lawyers working with and without the influence of Rule 68 to estimate the likelihood that lawyers behave the same way under both circumstances.

FIGURE 1
SETTLEMENT UNDER RULE 68



under Rule 68 can be accepted at the 90% level of confidence for plaintiffs' lawyers ($t = -1.44$), and the hypothesis of higher maximum bid levels can be accepted at the 95% level of confidence for defendants' lawyers ($t = 2.08$).³² Within-subject differences between minimum ask levels with and without Rule 68 averaged \$1,696 with a standard deviation of \$2,047 ($t = 0.83$). For maximum bid levels the difference was \$3,091 with a standard deviation of \$2,664 ($t = -1.16$). The direction of these results supports the hypothesis that Rule 68 encourages settlement, although the size and significance of the influence are unimpressive.

Whereas t -tests based on sample means were more appropriate in the Rowe-Vidmar study, which used samples of relatively homogeneous law and business school students, they do not control for characteristics of the attorneys in this sample that might also affect settlement decisions. Increased practice experience and past experience with tort litigation may increase bargaining ability, and thus improve the settlement value that the lawyer expects to obtain—although experience could also lead to an optimism-tempering realism. Regional differences in income, the cost of living, and local legal culture undoubtedly affect expectations and bargaining positions.

32. We present t -test results here for comparison with the Rowe-Vidmar results. T -tests of this sort may yield biased results when based on samples that are not independent (that is, the same subjects are asked how they would respond in different situations).

Furthermore, law students may behave differently from lawyers in their responses to the simulation. Table 3 includes hypotheses and conjectures about such behavior, with brief notations of the empirical results. Multiple regression analysis was used to isolate the effects of the several variables on which data were collected.³³

The independent variables obtained from the survey and controlled for in the regression analysis include whether the respondent is a lawyer or a law student, the year of a lawyer respondent's first bar admission, the region of the country in which the respondent practices or studies (indicated by office ZIP code), and whether the respondent has previous tort litigation experience. Practice experience is measured as the number of years since first bar admission (EXPERIENCE). Regional differences are accounted for using dummy variables³⁴ for practice in the West, South, North Central, or Northeastern United States (contained in the vector REGION). Dummy variables are also used to represent student status (STUDENT), lawyers with previous tort experience (LAWYER W/TORT), whether offers were made to the lawyer in descending valuations (DESCENDING), and the absence of Rule 68 (NO RULE 68). The dependent variable is the natural log of the minimum (maximum) amount accepted by plaintiffs' (defendants') lawyers, given whether or not Rule 68 was available. Under the assumption that all slope coefficients are the same with and without Rule 68, estimation of the equations

$$\begin{aligned} \text{Log Minimum Ask} = & \gamma_0 + \gamma_1 \text{EXPERIENCE} + \gamma_2 \text{EXPERIENCE} \\ & \text{SQUARED} + \gamma_3 \text{DESCENDING} + \gamma_4 \text{REGION} + \gamma_5 \text{STUDENT} + \gamma_6 \text{LAWYER} \\ & \text{W/TORT} + \gamma_7 \text{NO RULE 68} + \varepsilon_p \end{aligned} \quad (1)$$

and

33. Multiple regression analysis measures the effect of two or more independent variables on a dependent variable. This technique estimates the effect of each independent variable while controlling for the simultaneous influence of the other independent variables (i.e., holding the other independent variables constant). The coefficient on each independent variable, which appears before the associated variable in a multiple regression equation (e.g., the γ s in equation 1 in the text *infra*), indicates the change in the dependent variable resulting from an increase by one in that independent variable. When the dependent variable is the natural logarithm of a variable, the coefficients represent the *percentage* changes in the dependent variables resulting from an increase by one in the associated independent variables.

34. A dummy variable such as STUDENT equals one if the variable applies to the respondent and zero otherwise. If one variable out of each complementary set (e.g., DESCENDING or ASCENDING; STUDENT or LAWYER W/O TORT or LAWYER W/TORT) is not omitted from the regression equation, the serious problem of "multicollinearity" occurs, and results will be flawed. The coefficient on a dummy variable represents the average difference between the value of the dependent variable when the dummy variable is relevant, and when the omitted dummy variable is relevant. When the dependent variable is the natural log of a variable, this difference is in *percentage* terms.

TABLE 3

HYPOTHESIS / CONJECTURE	EMPIRICAL RESULT*
An enhanced Rule 68 would not promote settlement.	The hypothesis that all intercept and slope coefficients are simultaneously equal in the no-rule and Rule 68 equations cannot be rejected at the 80 percent level of significance or higher based on the results of the Chow test ($F = 0.141$). Standard regression analysis suggests that Rule 68 would decrease minimum ask levels by 7 percent and decrease maximum bid levels by 14 percent.
The Sincerity Rule allows either party to initiate settlement successfully at the level of the expected verdict.	The results indicate that Sincerity Offers are likely to be accepted if and only if they are at or near the adverse party's expected verdict.
Lawyers are risk-neutral.	Under the assumption of rationality, 41 percent of lawyers surveyed had an element of risk aversion in their strategy.
Given a standard amount of case information, litigants will have similar expectations of the verdict.	The difference between expected verdicts based on the lawyers' density functions is not statistically significant, but the difference between their stated expectations is.
Given a standard amount of case information, litigants will have similar density functions for the expected verdict.	The standard deviation of density estimates is as large as 16 percentage points for some verdict levels.
Lawyers process case information in a rational and sophisticated manner.	The difference between the stated expectations of the likely verdict and the computed expected values based on the lawyers' density functions for possible awards is statistically significant.
Plaintiffs' lawyers will expect higher verdicts than defendants' lawyers due to undue optimism.	The difference between stated expectations for plaintiffs' and defendants' lawyers is statistically significant.
Advanced law students will respond to case scenarios similarly to lawyers.	Students' minimum ask levels were significantly higher than lawyers'. Students demanded 17 percent more than lawyers without tort experience and 8 percent more than lawyers with tort experience.
Practice experience will increase expected gains from bargaining.	Practice experience has a positive but insignificant effect on minimum ask levels and a negative and significant effect on maximum bid levels.
Tort litigation experience will increase expected gains from bargaining.	Experience with tort litigation has a positive but insignificant effect on both minimum ask levels and maximum bid levels.
The region where a lawyer practices will affect her bargaining decisions.	Plaintiffs' lawyers from the West demand the lowest settlements, while those in the north central U.S. demand the highest settlements. Defendants' lawyers from the north central region will pay the least, while those from the Northeast will pay the most.

* Unless otherwise noted, results designated as statistically significant meet the criterion for significance at the 90 percent level of confidence or higher.

$$\text{Log Maximum Bid} = \delta_0 + \delta_1 \text{EXPERIENCE} + \delta_2 \text{DESCENDING} + \delta_3 \text{REGION} + \delta_4 \text{LAWYER W/TORT} + \delta_5 \text{NO RULE 68} + \varepsilon_p$$

(2)

measures the effect of Rule 68 in encouraging and moderating settlements.

The regression results from equations (1) and (2) are reported in Tables 4 and 5. Law students acting as plaintiffs' lawyers (no students

TABLE 4
ESTIMATES OF LOG MINIMUM ASK EQUATION*

Variable	Coefficient	t-ratio**
CONSTANT	2.77	27.14
STUDENT	0.17	2.09
LAWYER W/TORT	0.092	1.35
EXPERIENCE	0.011	1.25
EXPERIENCE SQUARED	-0.00030	-1.22
DESCENDING	0.16	2.57
NORTHEAST	0.11	1.31
NORTH CENTRAL	0.26	3.28
SOUTH	0.049	0.77
NO RULE 68	0.070	1.54

* The adjusted R-squared for this regression was 0.09.

** Significance at the 90% confidence level corresponds with a t-ratio above 1.64 in absolute value.

TABLE 5
ESTIMATES OF LOG MAXIMUM BID EQUATION*

Variable	Coefficient	t-ratio
CONSTANT	3.34	28.48
LAWYER W/TORT	0.032	0.40
EXPERIENCE**	-0.0089	-1.70
DESCENDING	0.054	0.73
NORTHEAST	0.12	1.11
NORTH CENTRAL	-0.14	-1.31
SOUTH	-0.092	-0.98
NO RULE 68	-0.14	-2.11

* The adjusted R-squared for this regression was 0.06.

** See *supra* note 35 for discussion of experience squared omission.

completed the defendants'-side survey) are found to demand higher settlement values than lawyers, suggesting that practice experience may indeed temper unrealistic expectations. Plaintiffs' lawyers in the West demanded the lowest settlement values, and those in the north central region demanded the highest. Defendants' lawyers from the Northeast were willing to pay the highest settlements, and those from

the north central region were willing to pay the lowest. Defendants' lawyers held out for lower settlements as practice experience increased,³⁵ although experience with tort litigation did not have a significant effect. Also statistically insignificant was the finding that plaintiffs' lawyers with more years of practice experience, or with tort litigation experience, demanded higher settlements. As in the t-test results, the hypothesis of lower minimum ask levels under Rule 68 can be accepted at the 90% level of confidence, and the hypothesis of higher maximum bid levels can be accepted at the 95% level of confidence. The coefficients on NO RULE 68 indicate that Rule 68 decreases recommended minimum ask levels by 7% and increases recommended maximum bid levels by 14%.

To account for the possibility that Rule 68 affects the decisions of different types of lawyers in different ways (e.g., lawyers more recently out of law school might be more receptive to Rule 68), a Chow test for structural change allows the assumption of equal slope coefficients with and without Rule 68 to be relaxed.³⁶ Using the unrestricted equations

$$\begin{aligned} \text{No Rule Log Minimum Ask} = & \alpha_0 + \alpha_1 \text{EXPERIENCE} + \\ & \alpha_2 \text{EXPERIENCE SQUARED} + \alpha_3 \text{DESCENDING} + \alpha_4 \text{REGION} + \\ & \alpha_5 \text{STUDENT} + \alpha_6 \text{LAWYER W/TORT} + \varepsilon_n \end{aligned} \quad (3)$$

and

$$\begin{aligned} \text{Rule 68 Log Minimum Ask} = & \beta_0 + \beta_1 \text{EXPERIENCE} + \beta_2 \text{EXPERIENCE} \\ & \text{SQUARED} + \beta_3 \text{DESCENDING} + \beta_4 \text{REGION} + \beta_5 \text{STUDENT} + \\ & \beta_6 \text{LAWYER W/TORT} + \varepsilon_r \end{aligned} \quad (4)$$

and the restricted equation (1) (and the analogous equations for the defendants' side) without the NO RULE 68 dummy variable, the Chow test statistic³⁷ evaluates the null hypothesis that Rule 68 does not affect the acceptance of settlement offers. The hypothesis that all inter-

35. The maximum bid regression reported in Table 5 was also estimated with the experience squared variable added as in the minimum ask regression reported in Table 4. The results indicated that the effect of experience on maximum bid levels is approximately linear, making the experience squared variable inappropriate for the maximum bid equation.

36. More intuitively, the Chow test measures the accuracy of the estimated relationships between minimum ask (or maximum bid) levels and lawyer characteristics when minimum ask levels under Rule 68 and no-rule are pooled together in the "restricted equation," and compares it to the accuracy of the estimated relationships when separate "unrestricted" equations are estimated for each circumstance. If there is no appreciable improvement in the accuracy when separate equations are estimated, the Chow test accepts the hypothesis that there is no change in minimum ask levels when Rule 68 is made available.

37. The test statistic for the Chow test is

$$F = \frac{[\text{SSE}(\text{Unconstrained}) - \text{SSE}(\text{Constrained})]/m}{s^2(\text{Unconstrained})}$$

cept and slope coefficients are simultaneously equal in the no-rule and Rule 68 equations ($\alpha_i = \beta_i$ for $i = 1$ to 6) cannot be rejected at any reasonable level of confidence by the results of the Chow test ($F = 0.27$ for plaintiffs' lawyers and 0.73 for defendants' lawyers). The Chow test results support the theoretical analysis suggesting that Rule 68 would not encourage out of court settlement by inducing the acceptance of more moderate offers.³⁸ These results are inconsistent, however, with the t-test and regression analyses of Rule 68's effects, particularly those on defendants' lawyers' decisions.

Although the assumptions implicit in the Chow test are less restrictive than those associated with the t-tests and standard regression analysis, the potential validity of the latter set of assumptions and the margin for error in any test allow for the possibility that Rule 68 would bring settlement demands and offers closer together. It is possible that weak effects on each party's bottom line would cumulate into a more substantial effect on the existence of a settlement range—a set of potential settlement values between the plaintiff's minimum demand and the defendant's maximum offer. After a random pairing of 66 lawyer respondents from each side of the case, 48% of the pairs had a settlement range without Rule 68 in the picture. For the same pairs, 65% had a settlement range under our hypothetical enhanced Rule 68. Unfortunately, the existence of a settlement range does not mean that the parties will settle. The obstacles of optimism and strategic behavior persist in the presence of a settlement range, and alternative rules may be needed to overcome these impediments.

B. Sincerity Rule

The hypothesis under the Sincerity Rule is that settlement offers are likely to be made and accepted near the level of the offeree's expected judgment.³⁹ Figure 2 indicates that under the Sincerity Rule, a majority of plaintiffs' lawyers would accept offers greater than or equal to their expected jury award (E_p), but that the acceptance level drops to 48% and 37% for offers \$1,000 and \$3,000 below E_p respec-

where m is the number of restrictions and s^2 is the estimate of the unrestricted regression variance.

38. See Anderson, *supra* note 4.

39. An intended purpose of Rule 68 in its various forms is to promote the making and acceptance of more moderate offers. The Sincerity Rule, by contrast, is expected to induce settlement at values near the expected jury award. Since the purposes of the two rules are not the same, this study evaluates the effectiveness of each rule in achieving its intended purpose, rather than comparing the rules directly.

tively.⁴⁰ As the defendant prefers not to offer more than E_p , and offers less than E_p are likely to be rejected, these results suggest that Sincerity Offers by defendants are likely to succeed if and only if they approximate E_p . Similarly, the results indicate that the majority of defendants' lawyers will accept Sincerity Offers less than or equal to E_d , but not below E_d , meaning that Sincerity Offers by plaintiffs are likely to succeed if and only if they are at or near E_d . The Sincerity Rule thus may afford a viable solution to unfair settlements and bargaining breakdown caused by unequal or disputed bargaining power if either party is willing to offer an amount near the adverse party's expected jury award (and potential offerors have cost-saving incentives to do so), because such offers are likely to be accepted.⁴¹

The prospect of an acceptable Sincerity Offer and the perceived fairness of the resulting settlement value improve when E_d and E_p are similar.⁴² If $E_d = E_p$, then settlement under the Sincerity Rule will occur as long as either party is willing to offer its own expected jury award. Such a settlement is "fair" in that the plaintiff receives the amount both sides would expect a jury to award her at trial. Figure 3 presents the average density function for expected jury verdicts. Although the standard deviation of density estimates is as large as 16 percentage points for verdicts between \$10,000 and \$20,000, the average expected jury verdicts calculated from these density functions are very close (\$32,717 for the plaintiffs' side and \$31,768 for the defendants' side), and the hypothesis that expected jury awards are alike cannot be rejected at any reasonable level of significance ($t = 0.52$).⁴³

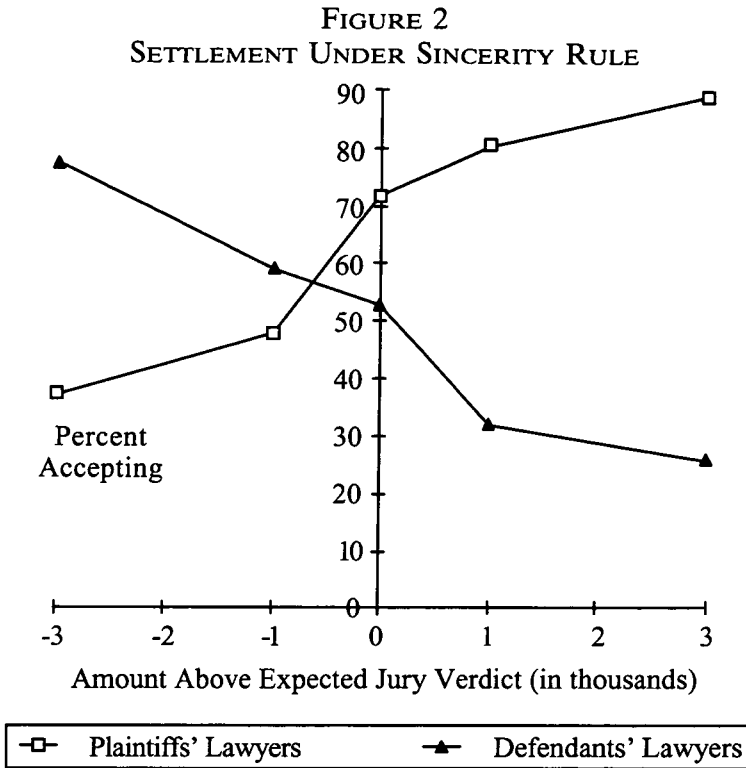
40. These figures may reflect some misunderstanding of an unfamiliar rule, as recommended acceptance levels remained above 25% in both groups for offers \$3,000 worse than the expected judgment—even though trial would be a free ride with the offeror liable for the offeree's fees. If the acceptance of offers inferior to the expected judgment decreased as lawyers became familiar with the rule, the long-run influence of this rule in inducing offers near offerees' expected judgments would be even greater and more desirable than our results imply.

41. The intuition behind this behavior is that savings from settling without trial make it worthwhile to make Sincerity Offers, and the ban on post-offer settlement bargaining defeats efforts to capture further gains from bargaining. See *supra* text following note 14; Anderson, *supra* note 4; and the Appendix for further discussion.

The acceptance of some form of the Sincerity Rule for actual use would require an effort to educate those in the legal profession of the benefits derived from the prohibition of post-offer bargaining and from the possibility that the offeror will have to pay the offeree's fees. If left unexplained, these counterintuitive requirements are likely to receive criticism (as they have in comments regarding the simulation).

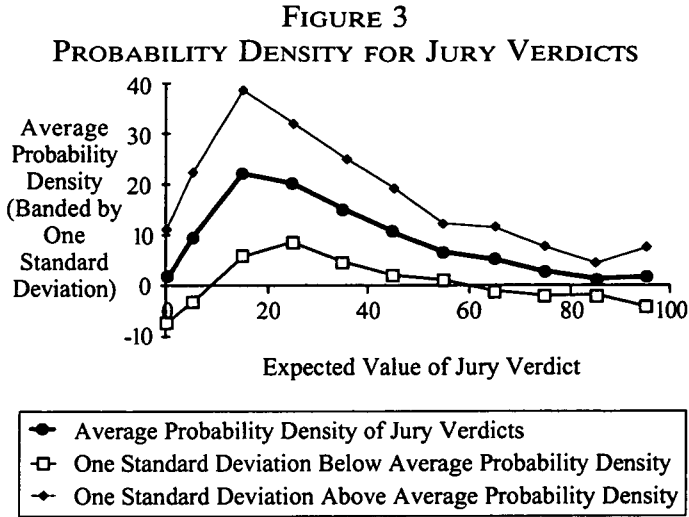
42. This goal is aided by current legal reform efforts designed to promote similar and predictable expected jury awards by encouraging early neutral evaluation, court-annexed arbitration, and summary (advisory) jury trials.

43. As discussed in the next section, a comparison of the stated (rather than the computed) expectations yields a statistically significant discrepancy between expectations for the two sides, attributed partly to optimism and imprecise estimation.



C. Risk Aversion, Sophistication, and Optimism

To the extent that litigants are risk averse, the success of any given settlement device will be enhanced—at the price, of course, of risk-averse parties receiving less in a settlement than they might reasonably expect from trial. For a risk-averse party, settlement adds the appeal of certainty to the potential saving of one's own litigation costs. Fee-shifting versions of Rule 68 compound the attractiveness of settlement to risk-averse parties by increasing the span of possible outcomes to include the threat of attorney fee liability. Under the assumption of rationality, recommending acceptance of a Sincerity Offer inferior to the offeree's expected jury award is an indication of risk aversion—the lawyer is *forgoing* a more favorable expected value of trial (with fees paid by the adverse party) in exchange for a certain result. Using this measure, 41% of respondents demonstrated an element of risk aversion in their strategy by recommending the acceptance of settlement offers inferior to their expected judgment by



\$1,000; 32% recommended the acceptance of offers inferior by \$3,000. The remaining 59% rejected all offers inferior to their expected judgment, suggesting the absence of risk aversion and its positive influence on settlement.

Beyond risk aversion, a significant influence on settlement is the convergence or divergence of adversaries' expectations for trial outcomes. Given the same statistical information regarding a case (e.g., a compilation of jury verdict reports from similar cases or a doctor's report on the probability of various medical procedures being necessary and their costs), the likelihood of two parties making similar estimates of the appropriate settlement value rests not only on tempered optimism, but on their ability to make accurate inferences from the data available. Excessive reliance on instinct, for example, provides no concrete basis for common predictions and no definite check on damaging optimism. As a measure of the sophistication with which lawyers use their data, we compared respondents' stated expectation of the likely jury award to the computed expected value based on their density function for possible awards. The difference between computed and stated expectations (\$32,717 vs. \$28,946 on the plaintiff's side and \$31,768 vs. \$26,652 on the defense side) is statistically significant at the 95% confidence level, suggesting that imprecise use of data may contribute to discrepancies between litigants' expected

jury awards.⁴⁴ The increased teaching of computer skills and statistical methods in modern law schools and continuing legal education programs may advance the sophistication of estimation procedures in litigation.

Undue optimism on the part of either party hinders settlement, leading litigants to expect overlapping portions of the gains from settlement. As a measure of optimism, we compared the expected verdicts of lawyers acting as counsel for plaintiffs and for defendants. If plaintiffs' lawyers expect higher verdicts than defendants' lawyers given identical information, this indicates optimism on the part of one or both parties. Table 2 contains the means and standard deviations of expected verdicts based on the lawyers' estimated density function for possible verdicts, as well as their stated expected verdicts. Although the means of the computed expectations differ by less than \$1,000, the means of the stated expectations differ by more than \$2,000 between plaintiffs' and defendants' lawyers, suggesting that the density functions were estimated more objectively whereas the stated expectation was based on instincts that are prone to optimism.⁴⁵ The difference in the sample means of the stated expectation for plaintiffs' and defendants' lawyers is almost significant ($t = 1.32$), and using a Chow test to control for the effects of optimism on demographic and experience coefficients, the equality of expectations cannot be accepted at the 80% level of confidence.

V. CONCLUSION

Table 3 presents a summary of testable hypotheses and conjectures along with brief statements of the empirical findings. The results suggest that a two-sided fee-shifting Rule 68 would have an elevating effect on defendants' lawyers' recommended maximum bid levels, and a smaller depressing effect on plaintiffs' lawyers' recommended minimum ask levels. The Rule is less likely to bolster the settlement rate

44. Respondent comments included often-stated resistance to the use of percentages, computers, and statistics. One memorable comment read, "Sorry, but I'm from the Paleolithic period and am not (yet) computer literate."

45. For similar findings from a study involving undergraduate and law student subjects assigned roles as parties, see George Loewenstein et al., *Self-Serving Assessments of Fairness and Pretrial Bargaining*, 22 J. LEGAL STUD. 135 (1993). Given a scenario based on an auto accident claim, subjects' "predictions of the value of the claim and judgments of what settlement would be fair" were both found to be "biased in a self-serving manner." *Id.* at 139. The authors speculate, however, that the assessments of lawyer agents as opposed to more directly self-interested principals might be subject to less self-serving bias. See *id.* at 156-57. Our finding of significant agent bias on one measure but not another seems broadly consistent with these authors' argument.

markedly, which would require not only moderation in minimum ask and maximum bid levels, but conciliatory changes in bargaining positions substantial enough to entice previous hold-outs to settle. The results of regression analysis indicate that under Rule 68 defendants' lawyers may recommend the acceptance of 14% higher demands, while plaintiff's lawyers are estimated to recommend a 7% lower bottom line. These results are supported by simple t-tests performed on the average maximum bid levels, but contradicted by Chow test estimates that entail less restrictive assumptions. (Such contradictory results are not uncommon from tests based on differing assumptions applied to relatively weak empirical relationships.)

Three out of five lawyers exhibited risk-neutral or risk-loving behavior, suggesting that to the extent that lawyers influence their clients' decisions, the lamentable engine of risk aversion that drives Rule 68's theoretical influence on settlement may be low on fuel. Although a sizable minority of respondents did display some degree of risk aversion, that trait already encourages settlement in the absence of the incentives provided by offer devices. To make a difference, enhanced offer rules or the Sincerity Rule must have an impact on those who are unlikely to settle in the absence of such rules, among whom the risk averse will be a smaller fraction than in the disputant population. The Schwarzer proposal currently under consideration by the Civil Rules Advisory Committee would further moderate settlement encouragement by imposing fee liability limits, thus reducing the financial threat of Rule 68.⁴⁶ In addition, the strength of the incentives created by even an enhanced Rule 68 is likely to decline as the amounts at stake increase, because litigation costs do not usually rise proportionately with the stakes.⁴⁷ Even if a revised version of Rule 68 is adopted, supplemental inducements to settlement may be necessary to achieve a substantial decrease in the volume of litigation.

The Sincerity Rule, which combines the option to make a legally-enforced final offer with a mechanism to ensure the fairness of such offers, is found to foster out-of-court settlement and guide settlement values towards the expected jury award. The Sincerity Rule performed as expected in the majority of cases, although significant mi-

46. For discussion of the comparability of results under full-fee-liability and the Schwarzer/Reporter capped versions of Rule 68, based on an earlier study that involved both basic forms, see *supra* note 6.

47. See Mauro Cappelletti & Bryant Garth, *Access to Justice: The Worldwide Movement to Make Rights Effective—A General Report*, in 1 ACCESS TO JUSTICE 3, 13 (1978) ("[T]he ratio of costs to amount in controversy steadily increases as the financial value of the claim goes down.").

norities of respondents recommended rejection of Sincerity Offers more favorable than their stated jury award expectations *or* counseled acceptance of less favorable ones. These results could flow from the first-time nature of many respondents' encounters with this rule; repeated experimentation, in simulations or in the real world, could yield more predictable patterns. Still, our results suggest that reformers should not expect anything resembling uniform responses to new rules, even ones that create strong incentives. The primary flaws in the Sincerity Rule are its counterintuitive fee-shifting device and its provision for a credible take-it-or-leave-it offer. If these strange-seeming but methodologically sound characteristics do not deter its consideration, the Sincerity Rule could be the basis for new rules that lead to more and fairer settlements.

Our results show that law students demand settlements 17% higher than lawyers without tort experience and 8% higher than lawyers with tort experience given the same case information, suggesting that caution be taken when projecting results from student samples into the real world. Finally, perhaps the most intriguing finding in our research was the divergence between parties' expected trial outcome based on lawyers' "density functions" of the likelihood of verdicts and their single stated expectation of the most likely jury award. It is straightforward to calculate a weighted average expectation from the density function; the stated expectations differed significantly (running considerably lower for both sides) from the density function average expectations, *and* the stated expectations for the plaintiff's and defense sides were considerably farther apart than their density function averages. Respondents may have been giving a mode rather than mean or median figure as their single stated expectation; but to the extent that they based bargaining positions on the stated expectation, they were introducing an element of disagreement not supported by what may have been their more rational density function estimates. In short, lawyers may agree more than they think they do—and fail to reach (or take longer than necessary in reaching) settlements that their own most rational estimations might suggest to them are in their clients' interests. This finding underscores the importance both of educational emphases on disinterested use of basic mathematical and estimating techniques, and of framing litigation rules that encourage such approaches—which enhanced offer rules and the Sincerity Rule may both accomplish.

APPENDIX

A MORE COMPLETE DESCRIPTION OF THE SINCERITY RULE

Consider a case with an expected verdict of approximately \$50,000 and \$20,000 attorney fees to each side if the case proceeds to trial. One possible scenario for this case could be that both sides are reasonable, rational, and willing to make or accept a settlement approximately half way between their expected net trial outcomes (based on similar expectations of the verdict). Under these assumptions, a no-rule offer in the vicinity of \$50,000 would result in settlement. There would be no need for Rule 68, the Sincerity Rule, or any other mechanism designed to encourage fair and timely settlement out of court.

Generally, two alternative scenarios result in the cases that proceed to trial, as well as those that are settled for inequitable amounts, or after an inordinate period of time. The first occurs if the two sides disagree sufficiently over the expected verdict so as to prevent settlement. That is, even if they agree on a 50-50 split of the \$40,000 gain from out-of-court settlement, they disagree over the settlement amount that would produce that split. If plaintiff thinks the verdict will be \$90,000, she would require that amount from defendant to perceive a 50-50 split of the gains from settlement. Such informational barriers to settlement are best addressed with summary jury trials, non-binding arbitration, discovery, etc., rather than settlement devices, none of which directly addresses informational needs.

The second alternative is that the two sides have similar expectations of the likely trial outcome, but there are attempts to gain from real or perceived inequities in the bargaining situation. When the assumption of a mutual interest in equity is dropped, there is nothing apropos about settlements in the \$50,000 range. Defendant benefits from any settlement under \$70,000, and plaintiff benefits from any settlement over \$30,000. Unequal bargaining positions might result from one party being unable to afford the uncertainties inherent in jury verdicts, or from a need to uphold a political or corporate reputation by avoiding trial. Preying on such real or imagined inequities, it is entirely possible that one party would *not* be willing to accept a no-rule offer of around \$50,000. The refusing party might get its way, immediately or after a prolonged struggle, with the case coming to a relatively unfavorable end for the disadvantaged party (e.g., a 20-80 split of the saving from not going to trial). The refusing party might hold out and then accept a more equitable offer only after causing considerable

legal expense for both parties. Or the refusing party might be so stubborn or misguided about her bargaining superiority as to hold out until trial.

The benefit that a disadvantaged party gains from making a Sincerity Offer comes from the Rule's potential to ward off any of the last three undesirable outcomes. In order to avoid trial, an inequitable settlement, or an equitable settlement after prolonged strategic behavior, a party whose reasonable no-rule offers have been rejected could make a Sincerity Offer of around \$50,000. This offer approximates a 50-50 split of the gains from settlement and would be accepted by any rational adversary whose goal is to maximize gains or minimize losses. Since Sincerity Offers are optional, there would be no reason to make such an offer to a seemingly irrational or spiteful adversary.

The purpose of the counter-intuitive fee payment *to* a party that refuses a Sincerity Offer is that it elicits offers at or near the expected jury verdict. (From the standpoint of fairness, we view the expected jury verdict as the best available target for settlement values.) With fees paid and no possibility for further bargaining, a party that refuses a Sincerity Offer will expect to gain *the expected jury verdict*. Thus, Sincerity Offers that *exceed* the expected jury verdict should be accepted by rational offerees, and those that fall below the expected jury verdict should rationally be refused. This is true even when one party has superior bargaining power and would normally be able to refuse no-rule offers around \$50,000 with the expectation that unfair no-rule counter-offers would be accepted by the disadvantaged party. It is to remedy these situations that the Sincerity Rule has been considered.

